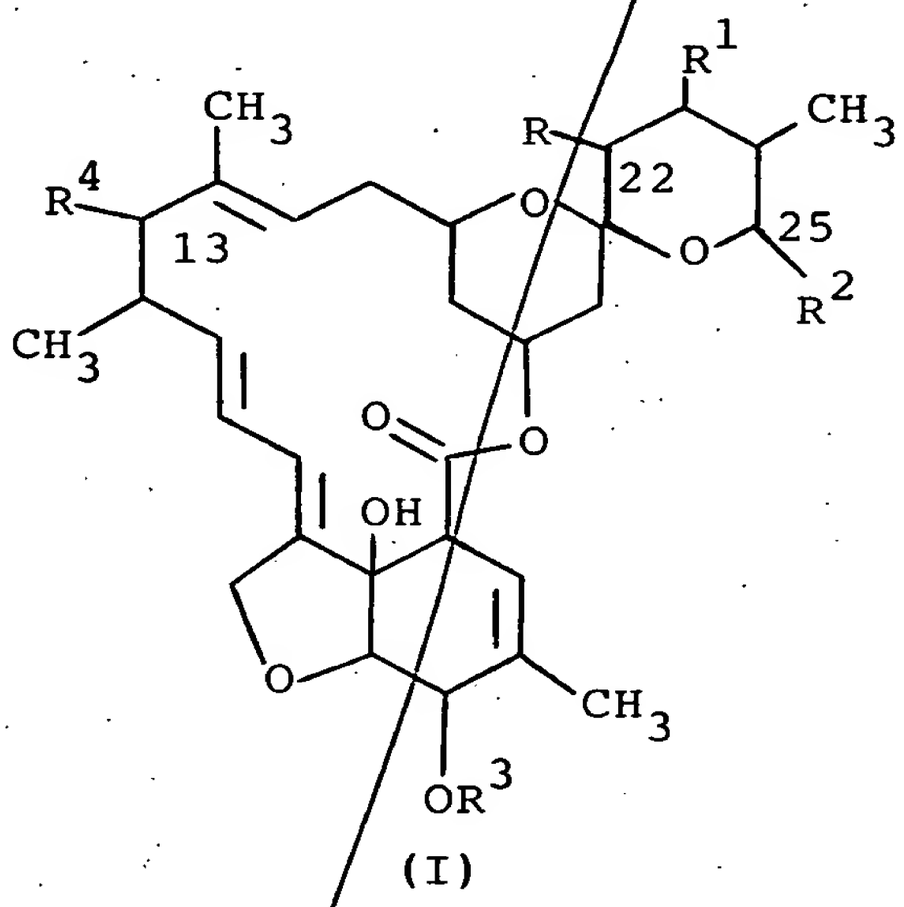
CLAIMS

1. A compound having the formula



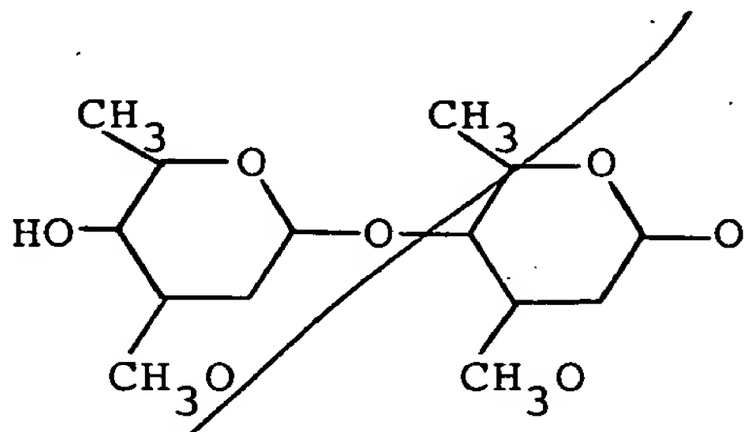
(I)

wherein R when taken individually is H; R^1 when taken individually is H or OH; R and R^1 when taken together represent a double bond;

R^2 is an alpha-branched C_3-C_8 alkyl, alkenyl, alkynyl, alkoxyalkyl or alkylthioalkyl group; a C_5-C_8 cycloalkylalkyl group wherein the alkyl group is an alpha-branched C_2-C_5 alkyl group; a C_3-C_8 cycloalkyl or C_5-C_8 cycloalkenyl group, either of which may be substituted by methylene or one or more C_1-C_4 alkyl groups or halo atoms; or a 3 to 6 membered oxygen or sulphur containing heterocyclic ring which may be saturated, or fully or partially unsaturated and which may be substituted by one or more C_1-C_4 alkyl groups or halo atoms;

R^3 is hydrogen or methyl;

R^4 is H or a 4'-(alpha-L-oleandrosyl)-alpha-L-oleandrosyloxy group of the formula:



with the proviso that when R^2 is alkyl it is not isopropyl or sec-butyl; when R^4 is H, each of R and R^1 is H, and R^2 is not methyl or ethyl; and when R^4 is H, R is H, R^1 is OH, and R^2 is not 2-buten-2-yl, 2-penten-2-yl or 4-methyl-2-penten-2-yl.

2. A compound according to claim 1 wherein R^4 is 4'-(alpha-L-oleandrosyl)-alpha-L-oleandrosyloxy.

3. A compound according to claim 2 wherein R is H and R^1 is H or OH.

4. A compound according to claim 3 wherein R^2 is a C_3-C_8 cycloalkyl which may be substituted by a C_{1-4} alkyl or a halo group.

5. The compound according to claim 4 wherein R is H; R^1 is OH; R^3 is methyl and R^2 is cyclopentyl.

6. The compound according to claim 4 wherein R is H; R^1 is OH; R^3 is methyl and R^2 is cyclohexyl.

7. The compound according to claim 4 wherein R is H; R^1 is OH; R^3 is methyl and R^2 is cyclobutyl.

8. The compound according to claim 4 wherein R is H; R^1 is OH; R^3 is H and R^2 is cyclobutyl.

9. The compound according to claim 4 wherein R is H; R^1 is OH; R^3 is methyl and R^2 is 2-methylcyclopropyl.

10. A compound according to claim 3 wherein R^2 is C_{5-8} cycloalkenyl.

11. The compound according to claim 10 wherein R is H; R^1 is OH; R^3 is methyl and R^2 is cyclohex-3-enyl.

12. A compound according to claim 3 wherein R^2 is a 3 to 6 membered oxygen or sulfur containing heterocyclic ring which may be saturated or unsaturated or substituted by a halo group.

13. The compound according to claim 12 wherein R is H; R^1 is OH; R^3 is methyl and R^2 is 3-thienyl.

14. The compound according to claim 12 wherein R is H; R^1 is OH; R^3 is methyl and R^2 is 2-furyl.

15. A compound according to claim 3 wherein R^2 is alkylthioalkyl.

16. The compound according to claim 15 wherein R^2 is 1-methylthioethyl; R^1 is OH and each of R and R^3 is hydrogen.

17. A compound according to claim 2 wherein R and R^1 taken together represent a double bond.

18. A compound according to claim 17 wherein R^2 is a C_3-C_8 cycloalkyl group.

19. The compound according to claim 18 wherein R^2 is cyclohexyl and R^3 is hydrogen.

20. The compound according to claim 18 wherein R^2 is cyclopentyl and R^3 is hydrogen.

21. The compound according to claim 18 wherein R^2 is cyclobutyl and R^3 is hydrogen.

22. A compound according to claim 17 wherein R^2 is a 3 to 6 membered oxygen or sulfur containing heterocyclic ring which may be saturated or unsaturated.

23. The compound according to claim 22 wherein R^2 is 3-thienyl and R^3 is methyl.

24. The compound according to claim 22 wherein R^2 is 3-thienyl and R^3 is hydrogen.

25. The compound according to claim 22 wherein R^2 is 3-furyl and R^3 is hydrogen.

26. A compound according to claim 17 wherein R^2 is a C_5-C_8 cycloalkenyl group.

27. The compound according to claim 26 wherein R^2 is cyclohex-3-enyl and R^3 is hydrogen.

28. A compound according to claim 2 wherein each of R and R^1 is H.

29. A compound according to claim 28 wherein R^2 is a C_3-C_8 cycloalkyl group.

30. The compound according to claim 29 wherein R^2 is cyclohexyl and R^3 is H.

31. The compound according to claim 29 wherein R^2 is cyclopentyl and R^3 is H.

32. The compound according to claim 29 wherein R^2 is cyclobutyl and R^3 is H.

33. A composition for the treatment and prevention of parasitic infections in humans and animals which comprises an antiparasitically effective amount of a compound of claim 1 together with an inert diluent or carrier.

34. A composition according to claim 33 in the form of a liquid drench or an oral or injectable formulation.

35. A composition according to claim 33 in the form of an animal feedstuff or a premix or supplement for addition to animal feed.

36. A process for producing a compound according to claim 1 wherein R is H; R^1 is H or OH; R^4 is 4'-(alpha-L-oleandrosyl)-alpha-L-oleandrosyloxy; and R and R^1 when taken together represent a double bond which comprises adding a carboxylic acid, or a salt, ester or amide thereof or oxidative precursor therefor, to a fermentation of an avermectin producing organism.

37. A process for producing a compound according to claim 36 wherein R is H; R^1 is H or OH; R^4 is 4'-(alpha-L-oleandrosyl)-alpha-L-oleandrosyloxy; and R and R^1 when taken together represent a double bond which comprises fermenting an avermectin producing strain of the organism Streptomyces avermitilis in the presence of a carboxylic acid of the formula R^2CO_2H wherein R^2 is as defined in claim 1, or a salt, ester or amide thereof or oxidative precursor therefor.

38. A process according to claim 36 wherein the organism is Streptomyces avermitilis NCIB 12121.

39. A process according to claim 37 wherein the organism is Streptomyces avermitilis NCIB 12121.

40. A method of combatting parasite infections or infestations which comprises contacting the organism responsible for said infection or infestation or the location of said organism with an antiparasitic amount of a compound according to claim 1.

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42